

SEQUENCE LISTING



<110> Chakravarti, Shukti
Case Western Reserve University

<120> Gene Expression Profiling of
Inflammatory Bowel Disease

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<140> US 10/084,892

<141> 2002-02-27

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<223> monocyte-derived neutrophil chemotactic factor
(MDNCF); interleukin 8 (IL-8) precursor; small
inducible cytokine, subfamily B, member 8 (SCYB8);
chemokine (C-X-C motif) ligand 8 (CXCL8)

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 motif) ligand 1 (CXCL1)

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 chemokine (C-X-C motif) ligand 2 (CXCL2)

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<223> monocyte-derived neutrophil chemotactic factor
(MDNCF); interleukin 8 (IL-8) precursor; small
inducible cytokine, subfamily B, member 8 (SCYB8);
chemokine (C-X-C motif) ligand 8 (CXCL8)

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precursor; small inducible cytokine A4 (SCYA4);
chemokine (C-C motif) ligand 4 (CCL4); activation
protein ACT-2 precursor; secreted protein G-26

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precursor; GRO3 oncogene (GRO3, GRO-gamma, GROG);
SCYB3; chemokine (C-X-C motif) ligand 3 (CXCL3);
melanoma growth stimulatory activity gamma

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<210> 8
<211> 328
<212> DNA
<213> Homo sapiens

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<220>
<223> macrophage inflammatory protein 1-beta (MIP-1beta)
precursor; small inducible cytokine A4 (SCYA4);
chemokine (C-C motif) ligand 4 (CCL4); activation
protein ACT-2 precursor; secreted protein G-26

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<213> Homo sapiens

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<223> prointerleukin 1 beta (pro-IL-1beta);
interleukin-1 beta precursor; catabolin

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<223> n = g, a, c or t

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<210> 10

<211> 1684

<212> DNA

<213> Homo sapiens

<220>

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<400> 10

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<210> 11
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 <212> DNA
 <213> Homo sapiens

<220>
 <223> interleukin-6 (IL-6) precursor; B-cell stimulatory factor 2 (BSF-2); hybridoma growth factor; CTL differentiation factor (CDF); interferon beta 2 (IFNB2)

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<210> 12
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 <212> DNA
 <213> Homo sapiens

<220>
 <223> growth hormone variant 1 (GH1) and growth hormone variant 2 (GH2); hGH-V, hGH-V2

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<210> 13
<211> 2376

<212> DNA

<213> Homo sapiens

<220>

<223> hepatoma-derived growth factor (HDGF);
high-mobility group protein 1-like 2 (HMG-1L2)

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<212> DNA
<213> Homo sapiens

<220>

<223> tumor necrosis factor (TNF) receptor superfamily, member 1A
(TNFRSF1A); tumor necrosis factor (TNF) receptor 1 (55kD)
(TNFR1, TNF-R55, p55-R); CD120a; TNFAR; TNFR60

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<210> 15

<211> 534

<212> DNA

<213> Homo sapiens

<220>

<223> neutrophil lipocalin (HNL); lipocalin 2 (LCN2);
human neutrophil gelatinase-associated lipocalin
(Hngal, NGAL); oncogene 24p3; 25 kDa
alpha-2-microglobulin-related subunit of MMP-9

<400> 15

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<210> 16
<211> 5869
<212> DNA
<213> Homo sapiens

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<220>
<223> neutrophil lipocalin (HNL); lipocalin 2 (LCN2);
      human neutrophil gelatinase-associated lipocalin
      (Hngal, NGAL); oncogene 24p3; 25 kDa
      alpha-2-microglobulin-related subunit of MMP-9

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 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

<220>
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 PLA2); phosphatidylcholine 2-acylhydrolase;
 non-pancreatic secretory phospholipase A2 (NPS-PLA2)

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 <213> Homo sapiens

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 inducible protein 4 (TP53I4, PIG4)

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<210> 22

<211> 748

<212> DNA

<213> Homo sapiens

<220>

<223> lysozyme (LYZ, LZM) precursor

<400> 22

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<210> 23

<211> 1971

<212> DNA

<213> Homo sapiens

<220>

<223> cytochrome P-450, family 3, subfamily A, polypeptide 7
(CYP3A7); cytochrome P-450 HFLa; aryl hydrocarbon hydroxylase;
microsomal monooxygenase; flavoprotein-linked monooxygenase;
xenobiotic monooxygenase

<400> 23

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<210> 24

<211> 1653

<212> DNA

<213> Homo sapiens

<220>

<223> antioxidant protein 2 (AOP2); peroxiredoxin 6
(PRDX6); 1-Cys periredoxin (1-Cys PRX);
non-selenium glutathione peroxidase (NSGPx);
KIAA0106

<400> 24

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<210> 25

<211> 367

<212> DNA

<213> Homo sapiens

<220>
 <223> metallothionein

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 <211> 1922
 <212> DNA
 <213> Homo sapiens

<220>
 <223> metallothionein-IG (MT1G)

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<210> 27
 <211> 285
 <212> DNA
 <213> Homo sapiens

<220>

<223> nitric oxide synthase 2 (inducible, hepatocyte) (NOS2, NOS2A)

<400> 27

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<210> 28

<211> 3411

<212> DNA

<213> Homo sapiens

<220>

<223> regenerating islet-derived 1 beta (REG1B) precursor;
regenerating protein I beta; lithostathine 1 beta
precursor; secretory pancreatic stone protein 2;
pancreatic thread protein (PTP)

<400> 28

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<211> 4251

<212> DNA

<213> Homo sapiens

<220>

<223> regenerating islet-derived 1 alpha (REG1A) precursor;
regenerating protein I alpha; lithostathine 1 alpha
precursor; secretory pancreatic stone protein (PSP, PSPS);
pancreatic thread protein (PTP)

<400> 29

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<211> 4497

<212> DNA

<213> Homo sapiens

<220>

<223> pancreatitis-associated protein 1 (PAP, PAP1) precursor;
regenerating islet-derived protein 3 alpha (REG3A,
Reg III-alpha) precursor; hepatocarcinoma-intestine-pancreas
(HIP); proliferation-inducing protein 34 (PIG34)

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 <213> Homo sapiens

<220>
 <223> zinc finger protein 436 (ZNF436), DNA-binding
 protein; KIAA1710

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<220>
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 calgranulin B (CAGB); migration inhibitory
 factor-related protein 14 (MRP-14)

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<210> 36

<211> 439

<212> DNA

<213> Homo sapiens

<220>

<223> S100 calcium-binding protein P (S100P);
migration-inducing gene 9

<400> 36

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439

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<210> 37

<211> 565

<212> DNA

<213> Homo sapiens

<220>

<223> annexin V, annexin 5, annexin A5 (ANX5, ANXA5); lipocortin V;
endonexin II; anchorin CII; placental anticoagulant protein I
(PAP-I); vascular anticoagulant-alpha (VAC-alpha);
calphobindin; anticoagulant protein 4

<400> 37

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<210> 38

<211> 3678

<212> DNA

<213> Homo sapiens

<220>

<223> hypoxia-inducible factor 1 alpha (HIF1A, HIF-1
alpha); basic-helix-loop-helix-PAS protein MOP1;
ARNT interacting protein

<400> 38

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<210> 39

<211> 1910

<212> DNA

<213> Homo sapiens

<220>

<223> nuclear factor of interleukin 6 (NF-IL6);
interleukin 6-dependent DNA-binding protein;
transcription factor 5

<220>

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<222> (1)..(1910)

<223> n = g, a, c or t

<400> 39

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<211> 774

<212> DNA

<213> Homo sapiens

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 precursor; MIF2 suppressor; small
 ubiquitin-related modifier 2 (SUMO2); sentrin 2

<220>
 <221> modified_base
 <222> (1)..(774)
 <223> n = g, a, c or t

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 <213> Homo sapiens

<220>
 <223> SWI/SNF related, matrix-associated, actin dependent regulator
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 60 kDa subunit A; chromatin remodeling complex BRG-1/Brm
 associated factor 60A (BAF60A); Swp73-like protein

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<210> 42

<211> 2444

<212> DNA

<213> Homo sapiens

<220>

<223> NF-kappa-B transcription factor p65 subunit
(NFKB3); p65delta2; RELA

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<210> 43

<211> 1301

<212> DNA

<213> Homo sapiens

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<223> basic transcription element binding protein 2;
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(intestinal) (KLF5, IKLF); similar to colon
Krueppel-like factor (CKLF); GC-box binding protein

<400> 43

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<210> 44

<211> 2346

<212> DNA

<213> Homo sapiens

<220>

<223> guanine nucleotide-binding protein alpha subunit
(GNAS1, Gs alpha); secretogranin VI

<400> 44

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<210> 45

<211> 41936

<212> DNA

<213> Homo sapiens

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<223> liver-specific bHLH-Zip transcription factor;
B6CBA LISCH7 homolog; lipolysis-stimulated
lipoprotein receptor; chromosome 19-cosmid R30879

<400> 45

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<210> 46

<211> 1342

<212> DNA

<213> Homo sapiens

<220>

<223> insulin-like growth factor binding protein 2
(IGFBP-2, IBP-2) precursor

<400> 46

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<210> 47

<211> 3839

<212> DNA

<213> Homo sapiens

<220>

<223> zinc finger protein 91 (ZNF91); Krueppel related
zinc finger protein; HTF10; HPF7

<400> 47

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<210> 48

<211> 1381

<212> DNA

<213> Homo sapiens

<220>

<223> general transcription factor IIIA (GTF3A)

<400> 48

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<210> 49

<211> 952

<212> DNA

<213> Homo sapiens

<220>

<223> sorcin CP-22 (SRI); calcium binding protein
amplified in multidrug-resistant cells

<400> 49

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<210> 50

<211> 1360

<212> DNA

<213> Homo sapiens

<220>

<223> creatine kinase, brain; creatine kinase-B (CKB,
B-CK, CKBB)

<400> 50

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<210> 51

<211> 1910

<212> DNA

<213> Homo sapiens

<220>

<223> CCAAT/enhancer binding protein (C/EBP beta, CEBPB);
nuclear factor NF-IL6 (IL6DBP); TCF5; CRP2; LAP

<220>

<221> modified base

<222> (1)..(1910)

<223> n = g, a, c or t

<400> 51

```

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cgcccttata aataaccggg ctcaggagaa acttttagcg gtcagagccg cgcacgggac 120
tggaagggg acccaccga ggtccagcc accagcccc tcactaatag cgccacccc 180

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gcaacgcctg	gtggcctggg	accagcatg	tctccccctg	ccgccgcgcg	cgcttgcctt	360
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<210> 52
 <211> 2855
 <212> DNA
 <213> Homo sapiens

<220>
 <223> cut-like 1 (CUTL1); CCAAT displacement protein (Drosophila)
 (CDP); CASP

<400> 52						
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```

<210> 53
 <211> 607
 <212> DNA
 <213> Homo sapiens

<220>
 <223> DNA-directed RNA polymerase II polypeptide J, transcript
 variant a (POLR2J, RPO2); hRPB14; RPB11, hsrPB11

```

<400> 53
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cattaacaag gacaccaagg tacccaatgc ctgtttattc accatcaaca aagaagacca 180
cacactggga aacatcatta aatcacaact cctaaaagac ccgcaagtgc tatttgctgg 240
ctacaaagtc cccacccctt tggagcacia gatcatcatc cgagtgcaga ccacgccgga 300
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agagggggct ctgctcgccc tgtgagcccc gtctctacct gtgcctgacc ctccgctcca 480
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gaagaga 607

```

<210> 54
 <211> 1578
 <212> DNA
 <213> Homo sapiens

<220>
 <223> TATA box binding protein (TBP)-associated factor;
 transcription factor SL1; RNA polymerase I, A 48kD (TAF1A,
 TAFI48, RAFI48)


```

<400> 54
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caggctgcac ctgagattat ttggaagctc ggaagtgaat ttctatttta tcatcccaaa 360
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aatgtattta tgtagtgtat taagaagctt atattactac aaaaaactta tttttatata 1500
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1578

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<210> 55
<211> 927
<212> DNA
<213> Homo sapiens

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<220>
<223> epithelial protein up-regulated in carcinoma
      (DD96); membrane associated protein 17 (MAP17);
      PDZK1 interacting protein 1 (PDZK1IP1)

```

```

<400> 55
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927

```

```

<210> 56
<211> 595
<212> DNA
<213> Homo sapiens

```

<220>

<223> calgizzarin; S100 calcium binding protein A11
(S100A11); protein S100C; MLN 70

<400> 56

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<210> 57

<211> 1433

<212> DNA

<213> Homo sapiens

<220>

<223> down-regulated in rhabdomyosarcoma LIM protein
(DRAL); four and a half LIM domains protein 2
(FHL-2); skeletal muscle LIM-protein 3 (SLIM 3);
aging associated gene 11 (AAG11)

<400> 57

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<210> 58

<211> 2416

<212> DNA

<213> Homo sapiens

<220>

<223> MAX interacting protein 1 (MXI1); MAX interactor 1
tumor suppressor; Max-related transcription
factor; MAX dimerization protein 2

<400> 58

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<210> 59

<211> 2881

<212> DNA

<213> Homo sapiens

<220>

<223> colon mucosa-associated down-regulated in adenoma
(DRA); solute carrier family 26, member 3
(SLC26A3); chloride anion exchanger; congenital
chloride diarrhea

<400> 59

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```

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2881

```

```

<210> 60
<211> 1429
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> selenium-binding protein 1 (hSBP, SELENBP1); SP56, HSP56;
LPSB

```

```

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<210> 61

<211> 1104

<212> DNA

<213> Homo sapiens

<220>

<223> MHC class II HLA-DP light chain

<400> 61

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<210> 62

<211> 282

<212> DNA

<213> Homo sapiens

<220>

<223> MHC class II HLA-DR beta 1 chain precursor
(HLA-DRB4)

```

<400> 62
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gccaggaaga gaagactggg gtgggtgtcca caggcctgat ccacaatgga gactggacct 180
tccagaccct ggtgatgctg gaaacagttc ctcggagtgg agaggtttac acctgccaa 240
tggagcaccc aagcgtgaca agccctctca cagtggaatg ga 282

```

```

<210> 63
<211> 213
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> MHC HLA class II DG; HLA-DR gamma chain; CD74
antigen

```

```

<400> 63
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agcatcggct actgctgggt tgtcttcccc aacggcacgg aggtcccca caccagaagc 180
cgcgggcacc ataactgcag tgagtcactg gaa 213

```

```

<210> 64
<211> 1191
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> MHC HLA class II DR beta-1 chain (HLA-DRB1)

```

```

<400> 64
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gacactgatg gtgctgagct cccactggc tttggctggg gacacccgac caggtttctt 180
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```

```

<210> 65
<211> 5724
<212> DNA
<213> Homo sapiens

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<220>
<223> MHC HLA class II DR alpha heavy chain (HLA-DRA)

```

<400> 65

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<210> 66
 <211> 1100
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MHC HLA class II DM alpha chain-like (HLA-DMA);
 RING6

<400> 66	
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gagtggatga	tccagcaaat
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gccttttctt	acttaaaact
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gatctgctgg	agaatgtgct
gtgggcattg	ttctcatcat
cctacctact	gtgtggcaag
acagatgtta	ccacttctgt
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cacgctgaag	cccctggagt
cttcccaccc	atgctgacag
gcctactttt	gtctcagctg
cacaccagaa	ccttctgaca
agcaattgcc	tattgggtac
gtgtggcgtg	gcctttggcc
ctacttccgg	aagccttgct
aaggtatggg	tcataaacag
ggctgctacc	ccactcctgg
tgcaaaacca	cacattcctg
tctctgaggc	ctacgacgag
tgcctcgctt	gcccgaattt
tatttgacaa	agagttctgc
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<210> 67
 <211> 1763
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MHC HLA class II DR2-Dw12 DQw1-beta chain
 (HLA-DRB2, HLA-Dw12)

<400> 67						
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gagggcagag	accctcccga	ggatttcgtg	ctccagttta	aggccatgtg	ctacttcacc	360
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<210> 68
 <211> 1216
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MHC HLA class II DQw1.1 beta chain (HLA-DQB1)
 precursor

<400> 68						
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acttttccct	tcgtctcaat	tatgtcttgg	aagaagtctt	tgcgatccc	cggagacctt	120
cgggtagcaa	ctgtcacctt	gatgctggcg	atcctgagct	cctcactggc	tgagggcaga	180
gactctcccg	aggatttcgt	gtaccagttt	aagggcctgt	gctacttcac	caacgggacg	240

gagcgcgtgc	ggggtgtgac	cagacacatc	tataaccgag	aggagtacgt	gcgcttcgac	300
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aacatgatcc	tgagtt					1216

<210> 69

<211> 915

<212> DNA

<213> Homo sapiens

<220>

<223> rearranged immunoglobulin lambda light chain (Ig lambda)

<400> 69

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cctgagcagt	ggaagtccca	cagaagctac	agctgccagg	tcacgcatga	aggagacacc	780
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<210> 70

<211> 527

<212> DNA

<213> Homo sapiens

<220>

<223> immunoglobulin heavy chain (IgH), VDJRC region

<400> 70

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gtctctggac	tcacctttag	tagctatggt	atgcactggg	tccgccaggc	tccaggcaag	180
gggctgcagt	gggtggcagc	tatatcatat	gatggaagta	ataaataacta	cgcagactcc	240
ttgaaggggc	gattcaccat	ctccagagac	aattccaaga	acacgctgta	tctgcaaatg	300
aacagcctga	gatctgagga	cacggctgtg	tattactgtg	cgagaggggc	ggggattact	360
gattttttgga	gtggttatta	cgtcaactgg	ttcgaccctt	ggggccaggg	aaccctgggtc	420

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accgtctcct cagcttccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg 480
agcacctctg ggggcacagc ggccctgggc tgcctggtca aggacta 527
```

```
<210> 71
<211> 382
<212> DNA
<213> Homo sapiens
```

```
<220>
<223> immunoglobulin lambda-like protein (IGLL2)
```

```
<400> 71
ggtcagccca agactacccc gtcggtcatt ctgttcctgc cgtcctgtga ggagcccca 60
gccaacaagg ccacactggg gtgtctcatg aataacttta tccgggaatc ttgatgggtga 120
cctggaaggc agatgggtacc ctcatcacc agagcgtgga gaagaccacg ccctccaaac 180
agagcaacaa caagtacgtg gccagcagct acctgagcct gacgcccag cagtggagggt 240
cccgcagaag ctacagctgc caggttatgc aagaagggag caccgtggag aagtcagtgg 300
cccctgcaga atgttcatag gttccagccc ccacccacc acaggggcct ggagctgcag 360
gatcccaggg gaggggtctc tc 382
```

```
<210> 72
<211> 1244
<212> DNA
<213> Homo sapiens
```

```
<220>
<223> immunoglobulin rearranged gamma chain, V-J-C
region
```

```
<400> 72
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```

```
<210> 73
<211> 454
<212> DNA
<213> Homo sapiens
```

```
<220>
<223> immunoglobulin rearranged kappa light chain,
variable region
```

```

<400> 73
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cgactcagga cattggcaac tatttaaatt ggtatcagca caaaccaggg aaagccccta 180
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catattactg tcaacagtat ggtaatctcc cattcacttt cggccctggg accaaagtgc 360
atatcaaacg aactgtggct gcaccatctg tcttcatctt ccgccatctg atgagcagtt 420
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454

```

```

<210> 74
<211> 676
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> MHC HLA class II Ia-associated invariant gamma
chain; CD74 antigen

```

```

<400> 74
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676

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```

<210> 75
<211> 468
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> omega light chain protein 14.1, immunoglobulin
lambda chain-like

```

```

<400> 75
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468

```

```

<210> 76
<211> 2919
<212> DNA
<213> Homo sapiens

```

<220>

<223> polymeric immunoglobulin receptor (poly-Ig
receptor, PIGR) precursor; hepatocellular
carcinoma-associated protein TB6; transmembrane
secretory component (SC)

<400> 76

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<211> 1799

<212> DNA

<213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

<220>
 <223> T-cell specific protein; T-cell receptor
 beta-chain

<400> 78
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 <213> Homo sapiens

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 (IP30); contains gamma-interferon inducible
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 <211> 2709
 <212> DNA
 <213> Homo sapiens

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 <223> interferon-gamma induced protein 16 (IFI16);
 interferon-inducible myeloid differentiation
 transcriptional activator

<400> 80						
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<211> 483

<212> DNA

<213> Homo sapiens

<220>

<223> hepatitis C-associated microtubular aggregate
protein p44

<400> 81

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<210> 82

<211> 634

<212> DNA

<213> Homo sapiens

<220>

<223> interferon-stimulated protein 15 kDa (ISG15); ISG15
ubiquitin-like modifier; ubiquitin cross-reactive protein
(UCRP) precursor; interferon alpha-inducible protein
(IFI-15K); interferon-induced 17 kDa protein precursor

<400> 82

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<210> 83

<211> 1451

<212> DNA

<213> Homo sapiens

<220>

<223> interleukin 2 receptor gamma subunit chain (IL2RG,
hIL-2Rg) precursor; cytokine receptor common gamma
chain (gamma-C) precursor; CD132 antigen; p64

<400> 83

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<210> 84

<211> 1071

<212> DNA

<213> Homo sapiens

<220>

<223> complement factor D (DF) precursor; adipsin; C3
convertase activator; properdin factor D

<400> 84

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<210> 85

<211> 1192

<212> DNA

<213> Homo sapiens

<220>

<223> CD9 antigen; leukocyte antigen MIC3;
motility-related protein-1 (MRP-1); tetraspanin-29
(Tspan-29)

<400> 85

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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alpha 6 (DEFA6) precursor; paneth cell-specific
alpha-defensin 6

<400> 88

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<212> DNA

<213> Homo sapiens

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preproprotein; macrophage metalloelastase (HME)
precursor; macrophage elastase (ME)

<400> 89

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<212> DNA

<213> Homo sapiens

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gelatinase; type IV collagenase (CLG4A)

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<211> 1970

<212> DNA

<213> Homo sapiens

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type I interstitial collagenase; fibroblast
collagenase; tissue collagenase

<400> 91

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<211> 1801

<212> DNA

<213> Homo sapiens

<220>

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proteoglycanase; progelatinase; transin-1

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1801

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<211> 2309

<212> DNA

<213> Homo sapiens

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<222> (2255)..(2256)

<223> n = g, a, c or t

<400> 93

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<211> 5086

<212> DNA

<213> Homo sapiens

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(COL1A2)

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<222> (1)..(5086)

<223> n = g, a, c or t

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<211> 10558

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<213> Homo sapiens

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(COL6A3)

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<210> 98

<211> 1585

<212> DNA

<213> Homo sapiens

<220>

<223> collagen alpha-2(VI) chain precursor; collagen VI
alpha-2; alpha-2 type VI collagen; type VI
collagen alpha 2 chain precursor (COL6A2)

<400> 98

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<210> 99

<211> 2212

<212> DNA

<213> Homo sapiens

<220>

<223> collagen alpha-2(IV) chain precursor; alpha-2 type
IV collagen; type IV collagen alpha (2) chain;
(COL4A2); procollagen; basement membrane collagen

<400> 99

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<210> 100

<211> 1830

<212> DNA

<213> Homo sapiens

<220>

<223> mucin 4; tracheo-bronchial mucin (MUC4)

<400> 100

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<210> 101

<211> 490

<212> DNA

<213> Homo sapiens

<220>

<223> trefoil factor 1 (TFF1) precursor; gastrointestinal trefoil protein pS2; pS2 protein precursor; protein NR-2/pS2; estrogen-regulated protein pNR-2; breast cancer estrogen inducible sequence (BCE1, BCE I); HP1.A

<400> 101

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<210> 102

<211> 229

<212> DNA

<213> Homo sapiens

<220>

<223> intestinal mucin

<400> 102

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<210> 103

<211> 2133

<212> DNA

<213> Homo sapiens

<220>

<223> osteonectin precursor; secreted protein, acidic, cysteine rich (SPARC); basement-membrane protein 40 (BM-40); extracellular matrix protein BM-40

<400> 103

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<210> 104

<211> 1182

<212> DNA

<213> Homo sapiens

<220>

<223> proteoglycan 1 (PRG1); hematopoietic proteoglycan core protein;
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serglycin (SRGN) precursor; proteoglycan secretory granule 1;
HL-60 cell proteoglycan peptide core; platelet proteoglycan

<400> 104

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<211> 1806

<212> DNA

<213> Homo sapiens

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<400> 105

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migration-stimulating factor

<400> 106

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<212> DNA

<213> Homo sapiens

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(RGD-CAP); ig-h3, beta ig.h3

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<212> DNA

<213> Homo sapiens

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(fasciclin-I-like); periostin (PN, POSTN);
periodontal ligament-specific periostin

<400> 108

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 <213> Homo sapiens

<220>

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coagulation factor VIII (F8VWF)

<400> 109

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<211> 9551

<212> DNA

<213> Homo sapiens

<220>

<223> trichohyalin (THH, TRHY, THL, TCHH)

<400> 110

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<210> 111

<211> 730

<212> DNA

<213> Homo sapiens

<220>

<223> cystatin A (CSTA); cystatin AS; stefin A (STF1)

<400> 111

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<210> 112
 <211> 2597
 <212> DNA
 <213> Homo sapiens

<220>
 <223> adducin 2 (ADD2); adducin 2 (beta); beta adducin;
 beta adducin 2; rabphilin-3A-interacting protein

<400> 112
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<210> 113
 <211> 802
 <212> DNA
 <213> Homo sapiens

<220>
 <223> amelogenin (AMELY, AMGL, AMGY) precursor;
 amelogenin (Y chromosome)

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<210> 114
 <211> 419
 <212> DNA
 <213> Homo sapiens

<220>
 <223> adipose specific collagen-like 2; adipose specific
 collagen-like factor; adipose most abundant gene
 transcript 2 (APM2, apM2); adipose specific 2;
 GS2374

<400> 114
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 <213> Homo sapiens

<220>
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<211> 820

<212> DNA

<213> Homo sapiens

<220>

<223> actin related protein 2/3 complex, subunit 4 (20kD) (ARPC4);
Arp2/3 protein complex 20 kD subunit (p20-Arc); EST clone
Id number 187446

<400> 117

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<210> 118

<211> 2552

<212> DNA

<213> Homo sapiens

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<400> 118

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<211> 105

<212> DNA

<213> Homo sapiens

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<223> esterase D (ESD); esterase 10; S-formylglutathione hydrolase (FGH)

<400> 119

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<210> 120

<211> 4656

<212> DNA

<213> Homo sapiens

<220>

<223> aldolase B (ALDOB, ALDB); aldolase 2,
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aldolase; fructose-1,6-bisphosphate
triosephosphate lyase B

<400> 120

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<210> 121

<211> 1062

<212> DNA

<213> Homo sapiens

<220>

<223> glucagon (GCG) preproprotein; enteroglucagon;
glicentin-related polypeptide (GRPP);
oxyntomodulin (OXY, OXM)

<400> 121

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<210> 122

<211> 2578

<212> DNA

<213> Homo sapiens

<220>

<223> monocarboxylate transporter 1 (MCT1); solute
carrier, family 16, member 1 (SLC16A1)

<400> 122

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<210> 123

<211> 4122

<212> DNA

<213> Homo sapiens

<220>

<223> 2-oxoglutarate dehydrogenase (OGDH) precursor; 2-oxoglutarate
dehydrogenase E1 component, mitochondrial precursor;
alpha-ketoglutarate dehydrogenase; oxoglutarate
(alpha-ketoglutarate) dehydrogenase (lipoamide)

<400> 123

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<211> 1450

<212> DNA

<213> Homo sapiens

<220>

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alcohol dehydrogenase alpha subunit (aADH);
aldehyde reductase

<400> 124

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cttccttctt						1450

<210> 125

<211> 1523

<212> DNA

<213> Homo sapiens

<220>

<223> carbonic anhydrase II (CA2, CA II); carbonic
anhydrase B; carbonic dehydratase; carbonate
dehydratase II

<400> 125

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agtcccctgt	tgacatcgac	actcatacag	ccaagtatga	cccttccctg	aagcccctgt	180

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caaagggcaa	gagtgtctgac	ttactaact	tcgatcctcg	tggcctcctt	cctgaatccc	600
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<210> 126

<211> 655

<212> DNA

<213> Homo sapiens

<220>

<223> carbonic anhydrase IV (CA4, CA-IV) precursor;
carbonic dehydratase; carbonate dehydratase IV;
retinitis pigmentosa 17 (autosomal dominant)

<400> 126

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cagcctctct	gttgccctcag	ctctccaagt	tccaggcttc	cggtccttag	ccttcccagg	480
tgggacttta	ggcatgatta	aaatatggac	atatttttgg	agaaaccttt	ctcaagtggtg	540
tttttagcct	tccacaacta	ccccaccctg	tccccctcca	cccacccctg	ttcctcctgt	600
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<210> 127

<211> 2657

<212> DNA

<213> Homo sapiens

<220>

<223> phosphoenolpyruvate carboxykinase 1, soluble
(PCK1, PEPCK)

<400> 127

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agacacagtg	cccatcccca	aaacaggcct	cagccagctc	ggtcgctgga	tgtcagagga	480
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<210> 128

<211> 1248

<212> DNA

<213> Homo sapiens

<220>

<223> syntaxin 4A (STX4A, STX4) precursor; syntaxin
(placental)

<400> 128

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<210> 129

<211> 2010

<212> DNA

<213> Homo sapiens

<220>

<223> chaperonin subunit 6A (CCT6A); chaperonin containing T-complex protein 1 (TCP1), subunit 6A; chaperonin containing TCP1, zeta 1 (CCT-zeta-1); histidine transport regulator 3 (HTR3); acute morphine dependence related protein 2; TRiC chaperonin subunit

<400> 129

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<210> 130
 <211> 2422
 <212> DNA
 <213> Homo sapiens

<220>
 <223> UDP-glycosyltransferase 1 (UGT1);
 UDP-glycosyltransferase 1 family, polypeptide A6
 (UGT1A6); phenol UDP-glucuronosyltransferase
 (UDPGT); phenol transferase UGT1F; GNT1

<400> 130
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 attaataaat ttatataatt ct 2422

<210> 131
 <211> 8447
 <212> DNA
 <213> Homo sapiens

<220>

<223> sulfotransferase family, cytosolic, 1A, phenol-preferring,
member 3 (SULT1A3, ST1A3); thermolabile phenol sulfotransferase
(STM); catecholamine-sulfating phenol sulfotransferase;
placental estrogen sulfotransferase (EST); aryl sulfotransferase

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<211> 2191

<212> DNA

<213> Homo sapiens

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glucuronosohydrolase; glucuronohydrolase; beta-G1

<400> 132

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<210> 133

<211> 2090

<212> DNA

<213> Homo sapiens

<220>

<223> UDP-glucuronosyltransferase 2 family, protein B15 (UGT2B15, UDPGT) precursor; UDP-glucuronosyltransferase 2B8 (UGT2B8) precursor, microsomal (estriol-specific); dihydrotestosterone/androstenediol UDP-glucuronosyltransferase isoform 3 (UDPGTh-3)

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gctaaccctt	cgttgtgcac	atgtacccta	aaacttaaag	tataatttaa	aaaaagcaaa	1980

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<210> 134
 <211> 1137
 <212> DNA
 <213> Homo sapiens

<220>
 <223> thiosulfate sulfurtransferase (TST);
 thiosulfate:cyanide sulfurtransferase; thiosulfate
 cyanide transsulfurase; thiosulfate
 thiotransferase; rhodanese

<400> 134
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 cgcaaggagt acctcgagcg ccacgtaccc ggcgctctt tctttgacat agaagagtg 240
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<210> 135
 <211> 3494
 <212> DNA
 <213> Homo sapiens

<220>
 <223> aminopeptidase N (ANPEP, PEPN, APN) precursor; membrane alanine
 aminopeptidase precursor; alanyl (membrane) aminopeptidase;
 microsomal aminopeptidase; aminopeptidase M; CD13 antigen;
 p150; IGF1R

<400> 135
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aaaaaaaaaa	aaaa					3494

<210> 136
 <211> 1815
 <212> DNA
 <213> Homo sapiens

<220>
 <223> protective protein for beta-galactosidase (PPGB,
 PPR) precursor; beta-galactosidase 2;
 carboxypeptidase C precursor; lysosomal protective
 protein; cathepsin A precursor

<400> 136
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 ctagtgtcct gggcggtccc aggcgaggca gccccgacc aggacgagat ccagcgccctc 120
 cccgggctgg ccaagcagcc gtctttccgc cagtactccg gctacctcaa aagctccggc 180

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attgggtaca	gcttc					1815

<210> 137

<211> 584

<212> DNA

<213> Homo sapiens

<220>

<223> fatty acid binding protein 6 (FABP6); gastropin (GT) isoform 1; ileal lipid-binding protein (ILBP, Illbp); ileal bile acid binding protein (I-BABP); intestinal 15 kDa protein (I-15P)

<400> 137

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ccagcagcat	ggctttcacc	ggcaagttcg	agatggagag	tgagaagaat	tatgatgagt	180
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tcacggaggt	gcagcaggat	gggcaggact	tcacttggtc	ccagcactac	tccggggggcc	300
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agacgttcaa	ggccactgtg	cagatggagg	gcgggaagct	ggtggtgaat	ttccccaact	420
atcaccagac	ctcagagatc	gtgggtgaca	agctggtgga	ggtctccacc	atcgagggcg	480
tgacctatga	gcgcgtgagc	aagagactgg	cctaagcagc	caggccccggc	ccagggagct	540
acaaacccac	caataaaaact	gatataagga	caaaaaaaaa	aaaa		584

<210> 138

<211> 634

<212> DNA

<213> Homo sapiens

<220>

<223> fatty acid binding protein 4, adipocyte (FABP4); adipocyte lipid-binding protein (ALBP); aP2; p15

<400> 138
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aaatgtgtga tgcttttgta ggtacctgga aacttgtctc cagtgaaaac tttgatgatt 120
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aagtcaagag caccataaacc ttagatgggg gtgtcctggt acatgtgcag aaatgggatg 360
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gactgaagtt cgcattgaac tctacaacat tctgtgggat atattgttca aaaagatatt 540
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gttacgttggt ttaaataact ttttttagat ttag 634

<210> 139

<211> 489

<212> DNA

<213> Homo sapiens

<220>

<223> fatty acid binding protein 1, liver (FABP1, FABP2,
L-FABP); fatty acid binding protein, hepatic; Z
protein; sterol carrier protein

<400> 139
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gagctcatcc agaaggggaa ggatatcaag ggggtgtcgg aaatcgtgca gaatgggaag 180
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gacataatca ccaataccat gacattgggt gacattgtct tcaagagaat cagcaagaga 420
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ctttgtttt 489

<210> 140

<211> 882

<212> DNA

<213> Homo sapiens

<220>

<223> delta3, delta2-CoA-isomerase (DCI);
delta(3)-delta(2)-enoyl-CoA isomerase;
dodecenoyl-CoA delta-isomerase precursor,
mitochondrial; 3,2-trans-enoyl-CoA isomerase

<400> 140
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gtgtccagga ggtcttaaac aaggtatttt tcaacttaaa aa 882

<210> 141
 <211> 1584
 <212> DNA
 <213> Homo sapiens

<220>
 <223> acetyl-CoA acyltransferase 2 (ACAA2);
 mitochondrial 3-oxoacyl-CoA thiolase;
 3-ketoacyl-CoA thiolase, mitochondrial;
 beta-ketothiolase; T1

<400> 141
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 tcaaataaat gttgccttaa cttc 1584

<210> 142
 <211> 9127
 <212> DNA
 <213> Homo sapiens

<220>
 <223> 3-beta hydroxysteroid dehydrogenase type II (HSD3B2);
 5delta-4delta isomerase; 3-beta isomerase 2; hydroxy-delta-5
 steroid dehydrogenase; steroid delta-isomerase 2; 3beta-hydroxy
 delta5-steroid dehydrogenase multifunctional protein II

<400> 142
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<210> 145

<211> 1344

<212> DNA

<213> Homo sapiens

<220>

<223> hydroxysteroid (17-beta) dehydrogenase 2 (HSD17B2); 17 beta hydroxysteroid dehydrogenase type 2 (17b-HSD); 17beta-estradiol dehydrogenase; estradiol 17beta dehydrogenase type 2; 20alpha-hydroxysteroid dehydrogenase

<400> 145

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<210> 146

<211> 1897

<212> DNA

<213> Homo sapiens

<220>

<223> 11-beta-hydroxysteroid dehydrogenase type II
(HSD11B2, 11-beta-HSD2, 11-DH2); corticosteroid
11-beta-dehydrogenase, isozyme 2; NAD-dependent
11-beta-hydroxysteroid dehydrogenase

<400> 146

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<210> 147
 <211> 511
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MAT8 protein; FXYP domain containing ion transport
 regulator 3 (FXYP3) precursor; chloride
 conductance inducer Mat-8; phospholemman-like
 protein

<220>
 <221> modified_base
 <222> (511)
 <223> n = g, a, c or t

<400> 147
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<210> 148
 <211> 571
 <212> DNA
 <213> Homo sapiens

<220>
 <223> guanylate cyclase activator 2A (GUCA2A); guanylate
 cyclase activating protein 1 (Gap-I); guanylin 2,
 intestinal, heat-stable; guanylin precursor;
 proguanylin

<400> 148
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<210> 149
 <211> 755
 <212> DNA
 <213> Homo sapiens

<220>
 <223> 6-pyruvoyl-tetrahydropterin synthase (PTPS, PTS);
 PTP synthase

<400> 149
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<210> 150

<211> 3727

<212> DNA

<213> Homo sapiens

<220>

<223> KIAA0035; similar to rat nucleolar phosphoprotein of 140 kD (RATNOP140B), nucleolar and coiled body phosphoprotein 1 (NOLC1), nucleolar phosphoprotein p130; trans-regulated protein 13; HCV NS5A

<400> 150

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<212> DNA

<213> Homo sapiens

<220>

<223> KIAA0367; BNIP2 motif containing molecule at
carboxyl terminal region (BMCC1)

<400> 151

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<211> 1144

<212> DNA

<213> Homo sapiens

<220>

<223> endogenous retrovirus envelope region; pseudo-env;
PL1

<400> 152

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<211> 494

<212> DNA

<213> Homo sapiens

<220>

<223> cytochrome c oxidase subunit Vb, mitochondrial
precursor; cytochrome c oxidase subunit 5B (COX5B)

<400> 153

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<212> DNA
 <213> Homo sapiens

<220>

<223> pancreatic ribonuclease A precursor; ribonuclease,
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 secretory; HP-RNase; RNase UPI-1; RIB1

<400> 154

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<212> DNA
 <213> Homo sapiens

<220>

<223> K12 protein precursor; secreted and transmembrane
 protein 1 (SECTM1) precursor

<400> 155

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accccgacgg	acgcggcgcc	gcccgggtgac	cgaggcctcg	cacagccggc	cgccctgagg	1920
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cgtcgcgctg	ctgggtcaga					2000

<210> 156

<211> 121

<212> DNA

<213> Homo sapiens

<220>

<223> CpG-enriched DNA, clone E18

<400> 156

cgggggcgcc	ggtgctcgca	ggggaggcgg	gcgtggatcc	cggggaagcc	gccatgcccg	60
ccgcgtggac	gccgtgagta	ccgagccccg	gcccccgagc	cccggggcac	cccggccgcg	120
a						121

<210> 157

<211> 1098

<212> DNA

<213> Homo sapiens

<220>

<223> caspase and RIP adaptor with death domain (CRADD);
 CASP2 and RIPK1 domain containing adaptor with death domain
 (CRADD); death domain containing protein CRADD

<400> 157

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actccgctca	cttcgcctgg	agctgggtgc	agaggtattg	gtggaggggac	tggttcttca	120
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cacaggcctc	cggaaaacaa	tgctcctgct	ggatatacta	ccttccaggg	gccctaaagc	240
atttgataca	ttcctagatt	ccctacagga	gtttccctgg	gtcagggaga	agctgaagaa	300
ggcaagggaa	gaggccatga	ccgacctgcc	tgcagggtgac	agattgactg	ggatccccctc	360
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taaggccaac	cacccccaca	acgtgcagtc	gcagggtggtg	gaggccttca	tccgttggcg	540
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taaaatgcga	attactat					1098

<210> 158

<211> 2920

<212> DNA

<213> Homo sapiens

<220>

<223> meprin 1A, meprin A alpha; N-benzoyl-L-tyrosyl-p-amino-benzoic acid hydrolase alpha subunit (PPH alpha); PABA peptide hydrolase; astacin metalloendopeptidase

<400> 158

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gcgagccagg	ctgcacagca	tttgctttcc	tctgagattc	taagagaagg	cctttaataa	2880
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<210> 159

<211> 1615

<212> DNA

<213> Homo sapiens

<220>

<223> N-acetyl-transferase 1 (NAT1); arylamine

N-acetyltransferase (AAC1)

<400> 159

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taccagttgg	aatctctctt	ttattaatca	ccaagagaac	catgaacaag	ctgtttatca	180
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tgaaagcact	agaaataatt	attatactta	taaccattgt	atttttacat	gtttaaaata	360
tagccataat	tagcctactc	aaatccaagt	gtaaaagtaa	aatgatttgc	tttcgttttg	420
ttttccttgc	ttaggggatc	atggacattg	aagcatatct	tgaaagaatt	ggctataaga	480
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aatttcttca	ttctgatctc	ctagaagaca	gcaaataccg	aaaaatctac	tcctttactc	1020
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ttcaaataat	aataataata	ataataataa	atgtatttta	aagatggcct	gtggttatct	1560
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<210> 160

<211> 2966

<212> DNA

<213> Homo sapiens

<220>

<223> protein phosphatase 2 catalytic subunit, alpha isoform

(PPP2CA); protein phosphatase 2A catalytic subunit-alpha

<400> 160

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gccgcggaag	tcagggtgcac	tgcgcgacac	tccccggta	ggtacacgct	cctccaccta	180

cgagtgcact	aattacaagg	tgccagccgc	gccagaggt	gggggtggtt	aatccaagcg	240
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ccaggtgagg	agctgagttc	atcaccagag	cggccttccc	aggggaacca	gttacaggct	420
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ataaaacagc	atgttttcag	gtagag				2966

<210> 161

<211> 1119

<212> DNA

<213> Homo sapiens

<220>

<223> tetraspanin-3 (Tspan3); transmembrane 4 superfamily
tetraspan TM4SF; globin regulator, clone 52, globin promoter
trans-activator

<400> 161

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<210> 162

<211> 852

<212> DNA

<213> Homo sapiens

<220>

<223> platelet activating factor (PAF) acetylhydrolase isoform 1b,
gamma subunit (PAFAH1B3)

<400> 162

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ctccttctc ag 852

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<210> 163

<211> 874

<212> DNA

<213> Homo sapiens

<220>

<223> tetranectin A (TNA); plasminogen binding protein;
plasminogen-kringle 4 binding protein

<400> 163

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874

<210> 164

<211> 871

<212> DNA

<213> Homo sapiens

<220>

<223> preprokallikrein; kallikrein 1 (KLK1) clone phKK25;
kallikrein, renal/pancreas/salivary (KLKR)

<400> 164

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871

<210> 165

<211> 1196

<212> DNA

<213> Homo sapiens

<220>

<223> enoyl CoA hydratase 1, peroxisomal (ECH1); peroxisomal
enoyl-coenzyme A hydratase-like protein; dienoyl CoA
isomerase; delta3,5-delta2,4-dienoyl-CoA isomerase; HPXEL

<400> 165

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<210> 166

<211> 2058

<212> DNA

<213> Homo sapiens

<220>

<223> 3-hydroxy-3-methylglutaryl coenzyme A synthase 2;
mitochondrial HMG CoA synthase 2 (HMGCS2); hydroxymethyl-CoA
synthase; hydroxymethylglutaryl-CoA synthase

<400> 166

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2058

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<210> 167

<211> 3976

<212> DNA

<213> Homo sapiens

<220>

<223> SREBP cleavage-activating protein (SCAP); KIAA0199

<400> 167

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<211> 3600

<212> DNA

<213> Homo sapiens

<220>

<223> guanylate cyclase activator 2B (GCAP-II, GUCA2B);
guanylate cyclase C activating peptide II; uroguanylin

<400> 168

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<210> 169

<211> 4622

<212> DNA

<213> Homo sapiens

<220>

<223> mitochondrial cytochrome c-1; cytochrome c1 subunit of
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<400> 169

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<211> 423

<212> DNA

<213> Homo sapiens

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<223> COX17 homolog; cytochrome c oxidase assembly protein
(yeast) homolog; mitochondrial copper recruitment homolog;
copper metallochaperone homolog

<400> 170

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<213> Homo sapiens

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      receptor (hERR1, ERR1, ERR alpha); estrogen receptor-like 1
      (ESRL1); ESRLA, ESR; NR3B1

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<210> 172
<211> 5749
<212> DNA
<213> Homo sapiens

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<220>

<223> mineralocorticoid receptor (MLR, hMR, MCR); aldosterone
receptor; nuclear receptor subfamily 3, group C, member 2
(NR3C2)

<400> 172

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<210> 173

<211> 769

<212> DNA

<213> Homo sapiens

<220>

<223> plasma membrane Ca²⁺ pump isoform 1a (alternatively spliced) (hPMCA1a, PMCA1), ATPase, Ca⁺⁺ transporting, plasma membrane 1 (ATP2B1)

<400> 173

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<210> 174

<211> 2823

<212> DNA

<213> Homo sapiens

<220>

<223> ATPase, H⁺ transporting, lysosomal (vacuolar proton pump)
subunit 1 (ATP6S1); Xq terminal portion ORF

<400> 174

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<210> 175

<211> 3220

<212> DNA

<213> Homo sapiens

<220>

<223> solute carrier family 20 (phosphate transporter) member 1
(SLC20A1, PIT1, PiT-1); gibbon ape leukemia virus receptor 1
(GLVR1); phosphate transporter/retroviral receptor

<400> 175

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<210> 176

<211> 2832

<212> DNA

<213> Homo sapiens

<220>

<223> solute carrier family 26 (sulfate transporter), member 2
(SLC26A2); diastrophic dysplasia (DTD), diastrophic dysplasia
sulfur transporter (DTDST); sulfate anion transporter 1;
D5S1708

<400> 176

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<210> 177

<211> 4646

<212> DNA

<213> Homo sapiens

<220>

<223> ATP-binding cassette subfamily B (MDR/TAP), member 1 (ABCB1, ABC20); P-glycoprotein (PGY1, P-GP, GP170); multidrug resistance (MDR1)

<400> 177

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<210> 178

<211> 2904

<212> DNA

<213> Homo sapiens

<220>

<223> butyrophilin, subfamily 2, member A1, transcript variant 1
(BTN2A1, BTF1, BT2.1)

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<210> 179

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<223> glycophorin E (GYPE)

<400> 179

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<213> Homo sapiens

<220>

<223> KIAA0110

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